OPERATING INSTRUCTIONS
FOR
MODEL
308 - 309 - 310 - 312

RADIO CITY PRODUCTS COMPANY, INC.

127 WEST 26TH STREET NEW YORK 1, N.Y.

MANUFACTURERS OF PRECISION ELECTRONIC LIMIT BRIDGES - VACUUM TUBE VOLTMETERS - VOLT - OHM - MILLIAMMETERS - SIGNAL GENERATORS - ANALYZER UNITS - TUBE TESTERS MULTI-TESTERS - OSCILLOSCOPES - AND SPECIAL INSTRUMENTS BUILT TO SPECIFICATIONS

DIRECTIONS FOR OPERATING 308 - 309 - 310 - 312 -DEPENDABLE TUBE TESTERS.

Series 7-16-40 Serial No._____ _____Volts_____Cycles (115 volts, 60 cycles unless other specified)

1. First observe the different controls on the instrument and then make the following settings for operation.
   (a) Set "Line Voltage Control" to "OFF" position.
   (b) Connect line cord to suitable A.C. supply.
2. Refer to tube chart for the tube to be tested and -
   (a) Set "Filament - Ballast" switch to position listed on chart.
   (b) Set "Shunt Control" to position indicated.
   (c) Insert tube into proper socket. All 8 prong tubes are inserted into the 8 prong socket marked "N" unless the tube chart indicates otherwise.
   (d) All loctal base tubes are inserted into the socket marked "L".
   (e) Turn "Load Selector" switch to proper position for tube as shown on chart.
   (f) Turn "Test Selector" switch to"Line V." position and turn "L. V. Control" about a quarter turn. Wait a few seconds for the rectifier tube to heat, then adjust "L.V.Control" until meter pointer coincides with arrow in center of dial.
3. Short & Leakage Test - Hot Cathode Leakage Test.
   (a) Set "Test Selector" switch to "Short" position and "Load Selector" switch to "Off - Short" position. Rotate the "Tube Selector"switch from "A to G". A permanent glow of neon lamp at any position indicates a short or leakage in the tube. Cathode leakage, if the tube has any, will also be indicated in this manner. Disregard any monentary glow that immediately disappears.
   (b) Tubes having filament voltages of 25 volts or higher will sometimes indicate a slight cathode leakage at the rated filament voltage. This is not objectionable in such tubes. To determine whether the tube is actually "shorted" or not, the filament setting should be reduced by one position. If the glow persists at the reduced filament voltage, the tube is actually defective. For example a 25Z5 is first checked for shorts at the rated filament setting of 8. If it is found that a slight glow persists at one or two settings of the "Tube Selector" switch, the filament setting is then reduced to 7. If the glow disappears, this means the tube is not "Shorted". For the quality test, the filament switch is brought back to position 8.
   This procedure applies only to tubes having a filament setting of 8 to 11 inclusive and does not apply to those tubes having filament settings from 1 to 7 inclusive.

   NOTE: It is normal for the neon lamp to glow in all positions of the "Tube Selector" switch unless the "Load Selector" switch is turned to "Off-Short" position.
4. Quality Test:
   (a) Tubes followed by (K) are tested by turning "Test Selector" switch to "Test K"position; and those tubes followed by (F) are tested by turning "Test Selector" switch to "Test - F" position.
   (b) Set "Tube Selector" switch to setting indicated on tube chart.
   (c) Set "Load Selector" to proper position. The meter will then indicate whether the tube is "Good or Bad" - if a tube has more than one listing, set "Load Selector" switch to "Off - Short" position, before changing the setting of the "Tube Selector" switch. This will prevent the possibility of the meter reading backwards. After the "Tube Selector" switch has been properly reset, the "Load Selector is pressed to proper setting again.

5. Noise Test - After completing the quality test, turn Shunt Control to 100 and connect an earphone to the twin jack marked "Noise Test", a steady hum will be heard. If tapping the tube with the fingers produces an additional click in the earphone, the tube is noisy. Repeat this procedure for points A, B, C, D, E and G on the "Tube Selector" switch.

6. Ballast Tube and Cold Cathode Tubes: (See Ballast tube & Cold Cathode Tube Sheet)

7. General:
   Tubes followed by (K) are generally but not always cathode type tubes; and tubes followed by (F) are usually but not always filament type tubes.

   This instrument tests tubes under standard R.M.A. plate voltages and loads. The 8 prong socket marked "Spare" is not wired to at all, but is inserted as a safeguard against obsolescence.

   * This instrument is furnished complete with a rectifier tube which is mounted directly underneath the panel.

8. Miniature lamp and pilot light testing;
   Adjust for line voltage with the line voltage control. Note the voltage rating of the lamp being tested and set the filament switch to the setting indicated in the list below. Place lamp into test socket in the center of the seven prong tube socket. If the lamp is good it will glow.

VOLTAGE RATING	FILAMENT SWITCH SETTING
1.25-1.5	1
2.5 -3.2	3
6.3 -8	6
12-18	7
24-35	8

9. One complete set of revised tube charts will be sent automatically to registered owners of Models 308 and 309 before October 1, 1941.

   One completely roll chart will be sent automatically to registered owners of Models 310 and 312 before October 1, 1941.

   Additional sets of tube charts will be sent upon receipt of 30¢ in coin or stamps; and an additional roll chart will be sent upon receipt of 75¢ in coin or stamps. This applies to additional copies of current charts or later revised printings.

Entire Operating Instructions and Tube Charts COPYRIGHT 1940
Radio City Products Company, Inc. New York City

TUBE CHART FOR OPERATING MODELS 308 and 309

Sheet #1

(This chart also applies to Model 307 tube testers with serial numbers that are followed by the letter "M")

Series 7-17-40

All 8 prong tubes are inserted into the 8 prong socket marked "N" unless tube chart indicates otherwise.

Tubes followed by (K) are tested in turning "Test Selector" to "Test - K" position. Those tubes followed by (F) are tested by turning "Test Selector" to "Test -F" position.

"G", "M G", and "G T" tubes are equivalent to the metal tubes of the same type, i.e. 25Z6G has exactly the same settings as 25Z6.

Tube Type	Fila-ment	Shunt Control	Tube Select.	Load Selector
00A(F)	5	60	C	Regular
01A(F)	5	60	C	Regular
0A4G(Cold K)	6	63	D	Off-Short
0Z3(Cold K)	BT	61	A	Off-Short
0Z4(Cold K)	BT	61	A	Off-Short
1A4(F)	2	52	G	Batt.Op.
1A5G(F)	1	50	D	Batt.Op.
1A6(F)	2	30	D	Batt.Op.
1A7G(F)	1	40	D	Batt.Op.
1B4(F)	2	52	G	Batt.Op.
1B5(F)	2	50	C	Diode
1B5(F)	2	50	D	Diode
1B5(F)	2	52	A	Batt.Op.
1B7(F)	1	54	D	Batt.Op.
1C4(F)	2	52	G	Batt.Op.
1C5G(F)	1	50	D	Batt.Op.
1C6(F)	2	30	D	Batt.Op.
1C7G(F)	2	30	D	Batt.Op.
1D4(F)	2	54	C	Batt.Op.
1D5G(F)	2	52	C	Batt.Op.
1D7G(F)	2	30	D	Batt.Op.
1D8(F)	1	54	D	Batt.Op.
1E4G(F)	1	55	D	Batt.Op.
1E5G(F)	2	52	G	Batt.Op.
1E7G(F)	2	56	C	Batt.Op.
1E7G(F)	2	56	D	Batt.Op.
1F4(F)	2	54	C	Batt.Op.
1F5G(F)	2	54	D	Batt.Op.
1F6(F)	2	52	G	Batt.Op.
1F6(F)	2	35	A	Diode
1F6(F)	2	35	D	Diode
1F7G(F)	2	52	G	Batt.Op.
1F7G(F)	2	35	C	Diode
1F7G(F)	2	35	D	Diode
1G4G(F)	1	54	D	Batt.Op.
1G5G(F)	2	55	D	Batt.Op.
1G6G(F)	1	54	C	Batt.Op.
1G6G(F)	1	54	D	Batt.Op.
1H4G(F)	2	52	D	Batt.Op.
1H5G(F)	1	45	G	Batt.Op.
1H5G(F)	1	45	D	Diode
1H6G(F)	2	52	E	Batt.Op.
1H6G(F)	2	50	C	Diode
1H6G(F)	2	50	D	Diode
1J6G(F)	2	54	C	Batt.Op.
1J6G(F)	2	54	D	Batt.Op.
1LA4(F)	1	54	E	Batt.Op.
1LA6(F)	1	50	D	Batt.Op.
1LB4(F)	1	54	E	Batt.Op.
**1LC5(F)	1	54	E	Batt. Op.
** Disregard a glow at position F.				
1LC6(F)	1	10	D	Batt. Op.
1LD5(F)	1	54	E	Batt. Op.
1LD5(F)	1	50	D	Diode
1LE3(F)	1	54	E	Batt. Op.
1LH4(F)	1	20	D	Diode
1LH4(F)	1	55	E	Batt. Op.
*1LN5(F)	1	55	E	Batt. Op.
* Disregard a glow at position F.				
1N5G(F)	1	55	G	Batt. Op.
1N6G(F)	1	54	D	Batt. Op.
1N6G(F)	1	10	E	Diode
1P5(F)	1	52	G	Batt.Op.
1Q5G(F)	1	59	D	Batt.Op.
1R5(F)	1	50	D	Batt.Op.
1S4(F)	1	54	C	Batt.Op.
1S5(F)	1	50	E	Batt.Op.
1S5(F)	1	50	C	Diode
1T4(F)	1	53	E	Batt.Op.
1V(K)	6	83	C	Regular
2A3(F)	3	75	C	Regular
2A4G(F)	3	84	D	Regular
2A5(K)	3	78	A	Regular
2A6(K)	3	81	A	Regular
2A6(F)	3	50	C	Diode
2A6(F)	3	50	D	Diode
2A7(K)	3	80	A	Regular
2B6(K)	3	80	A	Regular
2B6(K)	3	60	E	Regular
2B7(K)	3	77	A	Regular
2B7(F)	3	50	D	Diode
2B7(F)	3	50	E	Diode
2E5(K)	3	65	A	Regular
2G5(K)	3	65	A	Regular
2Y2(F)	3	10	C	Diode
2W3(F)*	3	65	C	Regular
* Use 8 prong socket marked "S".				
2X2(F)o	3	10	G	Regular
o Tube is good if reading is beyond "DIODE" marking.				
2Z2(F)	3	62	B	Regular
3A8(F)	1	50	A	Diode
3A8(F)	1	55	D	Batt.Op.
3Q5GT(F)	1	55	D	Batt.Op.
4A6(F)	2	54	C	Batt.Op.
4A6(F)	2	54	D	Batt.Op.
5T4(F)-	5	79	C	Regular
5T4(F)-	5	79	E	Regular
- Use 8 prong socket marked "S", and disregard a glow at posit."A"				
5U4G(F)-	5	78	C	Regular
5U4G(F)-	5	78	E	Regular
- Use 8 prong socket marked "S", and disregard a glow at posit."A"				
5V4G(F)-	5	84	C	Regular
5V4G(F)-	5	84	E	Regular
- Use 8 prong socket marked "S", and disregard a glow at posit."A"				
5W4(F)-	5	68	C	Regular
5W4(F)-	5	68	E	Regular
- Use 8 prong socket marked "S". Disregard a glow at position "A".				

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Tube Type	Fila-ment	Shunt Control	Tube Select.	Load Selector
5X3(F)*	5	65	B	Regular
5X3(F)*	5	65	C	Regular
* Disregard a glow at posit."A".				
5X4G(F)*	5	75	B	Regular
5X4G(F)*	5	75	D	Regular
* Disregard a glow at posit."A".				
5Y3(F)-	5	65	C	Regular
5Y3(F)-	5	65	E	Regular
- Use 8 prong socket marked "S". Disregard a glow at posit."A".				
5Y4G(F)*	5	65	B	Regular
5Y4G(F)*	5	65	D	Regular
* Disregard a glow at posit."A".				
5Z3(F)*	5	75	B	Regular
5Z3(F)*	5	75	C	Regular
* Disregard a glow at posit."A".				
5Z4(F)-	5	78	C	Regular
5Z4(F)-	5	78	E	Regular
- Use 8 prong socket marked "S". Disregard a glow at posit."A".				
6A3(F)	6	77	C	Regular
6A4(F)	6	68	C	Regular
6A5G(F)	4	70	D	Regular
6AB5(K)	6	75	A	Regular
6AB6(K)	6	66	A	Regular
6AB6(F)	6	59	D	Regular
6AC5G(K)	6	78	A	Regular
6AD5(K)	6	81	A	Regular
6AD6 (cold K)	6		A	Off-short
6AD7G(K)	6	78	A	Regular
6AD7G(F)	6	47	F	Regular
6AE5(K)	6	82	A	Regular
6A6(F)	6	78	C	Regular
6A6(F)	6	78	E	Regular
6AF5(K)	6	84	A	Regular
6AF6 (cold K)	6		A	Off-short
6A7(K)	6	80	A	Regular
6A7(F)	6	75	E	Regular
6A8(K)	6	80	A	Regular
6A8(F)	6	73	D	Regular
6B4G(F)	6	77	D	Regular
6B5(K)	6	75	A	Regular
6B6(K)	6	79	A	Regular
6B6(F)	6	50	C	Diode
6B6(F)	6	50	D	Diode
6B7(F)	6	79	A	Regular
6B7(F)	6	50	D	Diode
6B7(F)	6	50	E	Diode
6B8(K)	6	74	A	Regular
6B8(F)	6	50	C	Diode
6B8(F)	6	50	D	Diode
6C5(K)	6	78	A	Regular
6C6(K)	6	80	A	Regular
6C7(K)	6	80	A	Regular
6C7(F)	6	50	D	Diode
6C7(F)	6	50	E	Diode
6C8(K)	6	78	C	Regular
6C8(K)	6	78	A	Regular
6D5(K)	6	78	A	Regular
6D6(K)	6	78	A	Regular
6D7(K)	6	82	A	Regular
6D8G(K)	6	78	A	Regular
6E5(K)	6	65	A	Regular
6E6(F)	6	65	C	Regular
6E6(F)	6	65	E	Regular
6E7(K)	6	82	A	Regular
6F5(K)	6	78	A	Regular
6F6(K)	6	78	A	Regular
6F7(K)	6	82	A	Regular
6F8G(K)	6	82	A	Regular
6F8G(K)	6	82	C	Regular
6G5(K)	6	65	A	Regular
6G6G(K)	6	80	A	Regular
6H5(K)	6	65	A	Regular
6H6(F)	6	57	B	Diode
6H6(F)	6	57	D	Diode
6J5G(K)	6	83	A	Regular
6J7(K)	6	78	A	Regular
6J8G(F)	6	78	G	Regular
6J8G(K)	6	83	A	Regular
6K5G(K)	6	83	A	Regular
6K6G(K)	6	78	A	Regular
6K7(K)	6	78	A	Regular
6K8(F)	6	85	D	Regular
6K8(K)	6	86	A	Regular
6L5G(K)	6	70	A	Regular
6L6(K)	6	80	A	Regular
6L7(K)	6	82	A	Regular
6N5(K)	6	60	A	Regular
6N6G(K)	6	78	A	Regular
6N7(F)	6	77	C	Regular
6N7(F)	6	77	D	Regular
6P5(K)	6	75	A	Regular
6P7G(K)*	6	75	A	Regular
* Use 8 prong socket marked "S". Disregard a glow at posit. "B".				
6Q6G(K)	6	80	A	Regular
6Q6G(F)	6	50	C	Diode
6Q6G(F)	6	50	D	Diode
6Q7G(K)	6	82	A	Regular
6Q7G(F)	6	50	C	Diode
6Q7G(F)	6	50	D	Diode
6R6(K)	6	75	A	Regular
6R7(K)	6	80	A	Regular
6R7(F)	6	50	C	Diode
6R7(F)	6	50	D	Diode
6S7G(K)	6	78	A	Regular
6SA7(K)	6	85	E	Regular
6SC7(K)*	6	82	E	Regular
* Disregard a glow at posit. "A".				
6SF5(F)*	3	80	B	Regular
* Disregard a glow at posit. "A".				
6SJ7(K)	6	78	D	Regular
6SK7(K)	6	78	D	Regular
6SQ7(K)*	6	80	B	Regular
6SQ7(F)*	6	50	C	Diode
6SQ7(F)*	6	50	D	Diode
* Disregard a glow at posit. "A".				
*6SR7(K)	6	79	B	Regular
*6SR7(F)	6	50	C	Diode
*6SR7(F)	6	50	D	Diode
* Disregard a glow at position A.				
6T5(K)	6	67	A	Regular
6T7G(K)	6	81	A	Regular
6T7G(F)	6	50	C	Diode
6T7G(F)	6	50	D	Diode
6U5(K)	6	67	A	Regular
6U7G(K)	6	80	A	Regular
6V6G(K)	6	84	A	Regular
6V7G(K)	6	76	A	Regular
6V7G(K)	6	50	C	Diode
6V7G(F)	6	50	D	Diode
6W5G(F)	6	82	B	Regular
6W5G(F)	6	82	D	Regular
6W7G(K)	6	82	A	Regular
6X5(F)	6	78	B	Regular
6X5(F)	6	78	D	Regular
6Y5(F)	6	82	A	Regular
6Y5(F)	6	82	C	Regular
6Y6(K)	6	85	A	Regular

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Tube Type	Filament	Shunt Control	Tube Select.	Load Selector
6Y7G(F)	6	77	C	Regular
6Y7G(F)	6	77	D	Regular
6Z3(K)	6	83	C	Regular
6Z4(F)	6	84	B	Regular
6Z4(F)	6	84	C	Regular
6Z5(F)	6	82	A	Regular
6Z5(F)	6	82	C	Regular
6Z7G(F)	6	77	C	Regular
6Z7G(F)	6	77	D	Regular
6ZY5G(F)	6	76	B	Regular
6ZY5G(F)	6	76	D	Regular
7A4(K)	6	83	A	Regular
7A5(K)	6	84	A	Regular
7A6(F)	6	57	C	Diode
7A6(F)	6	57	E	Diode
7A7(K)	6	80	A	Regular
7A8(K)	6	77	A	Regular
7B4(K)	6	76	A	Regular
7B5(K)	6	60	A	Regular
7B6(F)*	6	80	C	Regular
7B6(F)*	6	55	E	Diode
* Disregard a glow at positions "A" and "D".				
7B7(K)	6	78	A	Regular
7B8(K)	6	80	A	Regular
7C5(K)	6	82	A	Regular
7C6(F)*	6	75	C	Regular
7C6(F)*	6	55	E	Diode
7C6(F)*	6	55	F	Diode
* Disregard a glow at positions "A" and "D".				
7C7(K)	6	82	A	Regular
7E6(F)*	6	75	C	Regular
7E6(F)*	6	50	E	Diode
7E6(F)*	6	50	F	Diode
* Disregard a glow at positions "A" and "D".				
7E7(K)	6	73	A	Regular
7E7(F)	6	50	C	Diode
7E7(F)	6	50	D	Diode
7F7(K)	6	78	B	Regular
7F7(K)	6	78	A	Regular
7G7(K)	6	87	A	Regular
7H7(K)	6	86	A	Regular
7J7(F)	6	77	E	Regular
7J7(K)	6	82	A	Regular
7L7(K)	6	87	A	Regular
7N7(K)	6	82	A	Regular
7N7(K)	6	82	B	Regular
7Q7(K)	6	84	A	Regular
7Y4(F)	6	78	C	Regular
7Y4(F)	6	78	E	Regular
10(F)	6	61	C	Regular
12A(F)	5	63	C	Regular
12A5(K)	7	78	E	Regular
12A7(K)	7	84	D	Regular
12A7(K)	7	70	A	Regular
12A8(K)	7	80	A	Regular
12B7(F)	7	75	E	Regular
12B8(K)	7	82	E	Regular
12B8(F)	7	80	G	Regular
12C8(K)	7	73	A	Regular
12C8(F)	7	50	C	Diode
12C8(F)	7	50	D	Diode
12F5(K)	7	78	A	Regular
12J5(K)	7	83	A	Regular
12J7(K)	7	78	A	Regular
12K7(K)	7	78	A	Regular
12Q7(K)	7	80	A	Regular
12Q7(F)	7	50	C	Diode
12Q7(F)	7	50	D	Diode
12SA7(K)	7	85	E	Regular
12SC7(K)*7		82	E	Regular
* Disregard a glow at posit."A".				
*12SF5(F)7		80	B	Regular
* Disregard a glow at position A.				
12SJ7(K)	7	78	D	Regular
12SK7(K)	7	78	D	Regular
12SQ7(K)*7		80	B	Regular
12SQ7(F)*7		50	C	Diode
12SQ7(F)*7		50	D	Diode
* Disregard a glow at posit."A".				
12Z3(K)	7	85	C	Regular
12Z5(F)	6	82	C	Regular
12Z5(F)	6	82	A	Regular
14(K)	7	77	A	Regular
**14B6(K)7		79	A	Regular
**14B6(F)7		50	E	Diode
**14B6(F)7		50	F	Diode
** Disregard a glow at positions A & D				
14J7(K)	7	82	A	Regular
14J7(F)	7	77	E	Regular
14Q7(K)	7	84	A	Regular
14Z3(K)	7	85	C	Regular
15(K)	2	55	A	Batt.Op.
17(K)	7	75	A	Regular
18(K)	7	78	A	Regular
19(F)	2	56	C	Batt.Op.
19(F)	2	56	D	Batt.Op.
20(F)	4	30	C	Regular
22(F)	4	10	G	Batt.Op.
24A(K)	3	78	A	Regular
25AC5(K)	8	78	A	Regular
25A6(K)	8	84	A	Regular
25A7G(K)	8	77	A	Regular
25A7G(F)	8	84	E	Regular
25B5(K)	8	75	A	Regular
25B5(F)	8	60	D	Regular
25B6G(K)	8	85	A	Regular
25B6(K)	8	82	E	Regular
25B8(F)	8	80	G	Regular
25C6(K)	8	85	A	Regular
25D8(F)	8	80	D	Regular
25D8(F)	8	80	G	Regular
25D8(F)	8	88	A	Regular
25L6(K)	8	88	A	Regular
25N6(K)	8	77	A	Regular
25N6(F)	8	62	D	Regular
25S(F)	2	52	A	Batt.Op.
25S(F)	2	50	C	Diode
25S(F)	2	50	D	Diode
25X6(K)	8	80	A	Regular
25X6(K)	8	80	C	Regular
25Y4(F)	8	85	D	Regular
25Y5(F)	8	85	A	Regular
25Y5(F)	8	85	B	Regular
25Z3(K)	8	85	C	Regular
25Z4(F)	8	85	D	Regular
25Z5(F)	8	85	A	Regular
25Z5(F)	8	85	B	Regular
25Z6(F)	8	85	B	Regular
25Z6(F)	8	85	D	Regular
26(F)	1	61	C	Regular
27(K)	3	75	A	Regular
29(K)	3	78	A	Regular
30(F)	2	50	C	Batt.Op.
31(F)	2	47	C	Batt.Op.
32(F)	2	52	G	Batt. Op.
32L7(F)	8	82	D	Regular
32L7(F)	8	85	E	Regular
33(F)	2	58	C	Batt. Op.
34(F)	2	52	G	Batt. Op.

Series 7-17-40

Tube Type	Filament	Shunt Control	Tube Select.	Load Selector
35(K)	3	78	A	Regular
35A5(K)	8	85	A	Regular
35L6(K)	8	86	A	Regular
35Z3(K)	8	85	A	Regular
35Z4(K)	8	87	A	Regular
* 35Z5(K)	8	87	A	Regular
* Disregard a glow at position B				
36(K)	6	75	A	Regular
37(K)	6	75	A	Regular
38(K)	6	75	A	Regular
39(K)	6	75	A	Regular
40(F)o	5	60	C	Regular
o Tube is OK if reading is over diode line.				
40Z5(K)	9	87	A	Regular
41(K)	6	78	A	Regular
42(K)	6	78	A	Regular
43(K)	8	78	A	Regular
44(K)	6	78	A	Regular
45(F)	3	63	C	Regular
45Z5(K)	8	87	A	Regular
46(F)	3	65	C	Regular
47(F)	3	63	C	Regular
48(K)	8	83	A	Regular
49(F)	2	58	C	Batt.Op.
50(F)	6	57	C	Regular
50C6(K)	9	85	A	Regular
50L6(K)	9	85	A	Regular
51(K)	3	78	A	Regular
52(F)	6	63	C	Regular
53(F)	3	75	C	Regular
53(F)	3	75	E	Regular
55(K)	3	73	A	Regular
55(F)	3	50	C	Diode
55(F)	3	50	D	Diode
56(K)	3	72	A	Regular
56AS(K)	6	72	A	Regular
57(K)	3	80	A	Regular
57AS(K)	6	80	A	Regular
58(K)	3	78	A	Regular
58AS(K)	6	78	A	Regular
59(K)	3	78	A	Regular
64(K)	6	75	A	Regular
65(K)	6	75	A	Regular
67(K)	6	75	A	Regular
68(K)	6	75	A	Regular
69(K)	6	78	A	Regular
70(K)·	6	78	A	Regular
70A7(K)*10		86	F	Regular
70A7(K)*10		84	A	Regular
* Use 8 prong socket marked "S".				
70L7(F)	10	85	A	Regular
70L7(K)	10	87	E	Regular
71(F)	5	61	C	Regular
71A(F)	5	61	C	Regular
75(F)	6	50	C	Diode
75(F)	6	50	D	Diode
75(K)	6	80	A	Regular
76(K)	6	75	A	Regular
77(K)	6	80	A	Regular
78(K)	6	83	A	Regular
79(F)	6	77	C	Regular
79(F)	6	77	G	Regular
80(F)	5	63	B	Regular
80(F)	5	63	C	Regular
81(F)	6	57	B	Regular
82 (F)	3	82	B	Regular
82(F)	3	82	C	Regular
83(F)	5	84	B	Regular
83(F)	5	84	C	Regular
84(F)	6	84	B	Regular
84(F)	6	84	C	Regular

Tube Type	Filament	Shunt Control	Tube Select.	Load Selector
85(K)	6	76	A	Regular
85(F)	6	50	C	Diode
85(F)	6	50	D	Diode
88(F)	5	84	B	Regular
88(F)	5	84	C	Regular
89(K)	6	78	A	Regular
90(K)	3	78	A	Regular
92(K)	6	78	A	Regular
95(K)	3	78	A	Regular
98(F)	6	84	B	Regular
117L7(K)	11	84	A	Regular
117L7(F)	11	84	E	Regular
117N7(K)	11	85	A	Regular
117N7(K)	11	84	E	Regular
Use the 8 prong socket marked "S".				
* 117Z6(F)	9	85	B	Regular
* Use 8 Prong Socket Marked "S"				
117Z6(F)	9	85	D	Regular
117Z6GT(F)	11	85	D	Regular
117Z6GT(F)	11	85	B	Regular
182A(F)	5	61	C	Regular
182B(F)	5	61	C	Regular
183(F)	5	61	C	Regular
213(F)	5	65	C	Regular
216(F)	6	60	B	Regular
401A(F)	5	60	C	Regular
450(F)	6	61	C	Regular
482A(F)	5	61	C	Regular
483(F)	5	61	C	Regular
485(K)	4	78	A	Regular
585(F)	6	61	C	Regular
586(F)	6	61	C	Regular
861(F)	6	84	L	Regular
861(F)	6	84	C	Regular
866(F)	3	86	G	Regular
885(K)	3	85	A	Regular
950(F)	2	54	C	Batt.Op.
951(F)	2	52	G	Batt.Op.
985(F)	5	84	B	Regular
985(F)	5	84	C	Regular
986(F)	5	84	B	Regular
986(F)	5	84	C	Regular
1231(K)	6	87	A	Regular
1232(K)	6	87	A	Regular
1608(F)	3	80	C	Regular
1851(K)	6	86	A	Regular
1852(K)	6	88	D	Regular
1853(K)	6	86	D	Regular
AD(K)	6	83	C	Regular
AF(F)	3	82	B	Regular
AF(F)	3	82	C	Regular
AG(F)	5	83	B	Regular
AG(F)	5	83	C	Regular
AX(F)	5	60	C	Regular
BH(ColdK)BT		62	A	Off-Short
BR(ColdK)BT		62	A	Off-Short
D½(F)	6	60	B	Regular
DE1(K)	3	75	A	Regular
E(F)	4	30	C	Regular
G2S(F)	3	50	B	Diode
G2S(F)	3	50	C	Diode
G4S(F)	3	50	B	Diode
G4S(F)	3	50	C	Diode
G84(F)	3	62	B	Regular
H(F)	5	60	C	Regular
-HY115(F)	1	55	C	Batt. Op.
-HY113(F)	1	10	C	Batt. Op.
-HY125(F)	1	55	C	Batt. Op.
- Tube is good if reading is beyond DIODE marking on the meter scale. Readings apply only to Model 309				
KR5(F)	6	68	C	Regular
LA(F)	6	68	C	Regular
PZ(F)	3	63	C	Regular
PZH(K)	3	78	A	Regular
X99(F)	4	10	C	Batt.Op.
WUNDA(K)	3	75	A	Regular
Wund-Auto(K)	6	75	A	Regular

MODELS 308 and 309 Series 7-17-40

Turn "Test Selector" to "short" position; "Filament - Ballast" switch to "B.T." position; and "Load Selector" switch to "Off-Short" position. Insert Ballast tube into proper socket and set "Tube Selector" to position indicated on chart. The neon lamp should glow. If it does not, the tube is defective.

Type	Tube Selector	Type	Tube Selector	Type	Tube Selector	Type	Tube Selector
1-1	A	5-220	C	31	C	185R8	A
1A1	A	5-A-5	C	038	C	185R8	C
1A2	B	5E1	A	42A1	A	218	C
1A2	C	5H-1	A	42A1	C	313	C
1-A-5	C	5H-5	C	42A2	A	314	C
1B1	A	5H-220	C	42A2	C	315	C
1B2	B	6	A	42B2	A	415	C
1B2	C	6-1	A	42B2	C	425	C
1C1	A	6-20	C	46A1	A	449	C
1C2	D	6AA	A	46B1	A	538	C
1C2	C	6-A5	C	49A1	A	538	C
1D1	A	6H-1	A	49A1	C	838	C
1E1	A	D6-1	A	49B2	A	874	C
1F1	A	7	A	49B2	C		
1G1	A	7-1	A	52	B		
1J1	A	7-20	C	52	C		
1H-1	A	7-150	C	55A1	A		
1K1	A	7-A-5	C	55A1	C		
1L1	A	7H-1	A	55A2	A		
1N1	A	8	A	55A2	C		
1P1	A	8-A-5	C	55B2	A		
1Q1	A	9	A	55B2	C		
1R1G	A	9-20	C	98	C		
1S1G	A	9-150	C	100	C		
1T1G	A	9-A-5	C	105	C		
1Y1	A	10-10	C	106	C		
1Z1	A	10AB	A	110	C		
2	A	10-A-5	C	118	C		
2-A-5	C	10V10	C	125	C		
2H-1	A	11-10	C	126	C		
2H-5	C	11-20	C	130	C		
3	A	11-150	C	140R	A		
3-1	A	11-A-5	C	140R4	A		
3-150	C	12-20	C	140R4	C		
3-A-5	C	13-10	C	140R8	A		
3H-1	A	13-20	C	140R8	C		
3H-220	C	13-A-5	C	150	C		
4	A	14-20	C	155	C		
4-1	A	14-A-5	C	158	C		
4-220	C	15-10	C	165R	A		
4-A-5	C	15-20	C	165R4	A		
4H-5	C	18-10	C	165R4	C		
4H-220	C	20-A-5	C	165R8	A		
5	A	22-10	C	165R8	C		
5-1	A	30	B	185R	A		
5-16	C	30	C	185R4	A		
5-150	C	31	B	185R4	C		

If a tube is not listed on this tube chart, rotate the "tube selector switch" from A to G. If the neon lamp does not glow in at least one position of the tube selector switch", the tube is defective.

COLD CATHODE TUBES

Turn "Test Selector" to" COLD K"position; "Filament - Ballast" switch to "B.T." position; and "Load Selector" switch to "Off-Short" position. Insert the cold cathode tube into proper socket and set "Tube Selector" to position indicated on chart. The meter will then indicate whether the tube is "Good or Poor"

The "Shunt Control" should be kept at 100 setting, although the exact seting of the "Shunt Control" is not important.

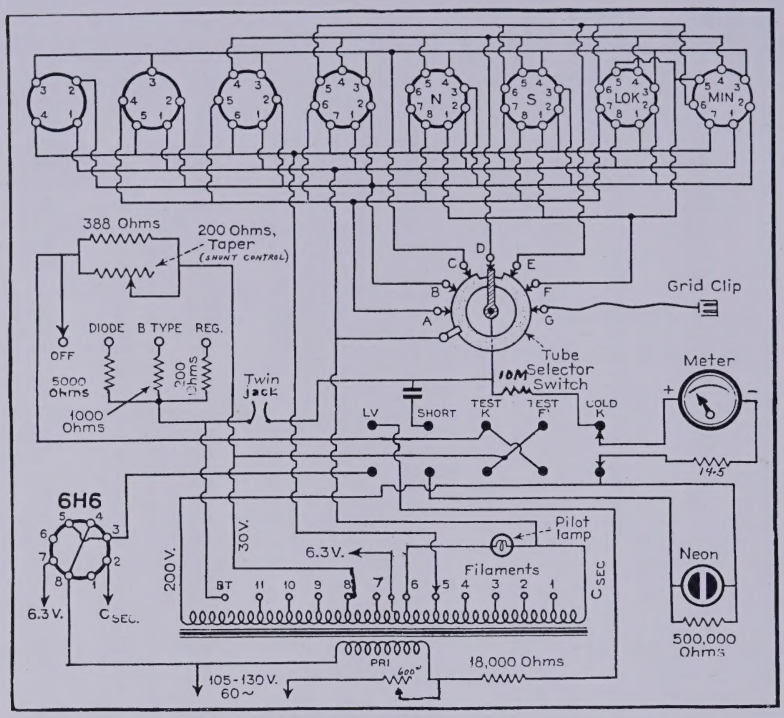
SUPPLEMENTARY TUBE CHART FOR MODELS 307M, 308, 309, 310, 312, 313, 801, 802, 803.

Tube Chart #5 — Series 10-3-41

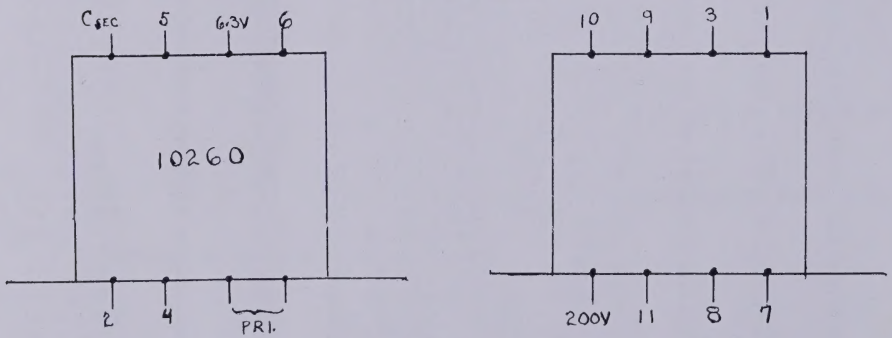
Tube Type	Filament	Shunt Control	Tube Select.	Load & Circuit Selector
1J5G(F)	2	50	D	Batt.Op.
**1LC5(F)	1	54	E	Batt.Op.
**Disregard a glow at position F.				
1LC6(F)	1	10	D	Batt.Op.
1LD5(F)	1	54	E	Batt.Op.
1LD5(F)	1	50	D	Diode
1LE3(F)	1	54	E	Batt.Op.
1SA6GT(F)	1	56	C	Batt.Op.
1SB6GT(F)	1	54	A	Batt.Op.
1T5GT(F)	1	52	D	Batt.Op.
*3B5GT(F)	1	54	D	Batt.Op.
*Disregard a glow at position"A".				
**3Q4(F)	1	54	C	B Type
**Disregard a glow at position B,E.F.				
..3S4(F)	1	50	C	Batt.Op.
..Disregard a glow at posit. B,E.F.				
4A6(F)	2	54	C	Batt.Op.
4A6(F)	2	54	D	Batt.Op.
6AB7(K)	6	88	D	Regular
6AC7G(K)	6	87	D	Regular
6AD7G(K)	6	78	A	Regular
6AD7G(F)	6	47	F	Regular
6AE6G(K)	6	78	A	Regular
6H4(K)	6	57	A	Diode
6SD7GT(K)	6	86	D	Regular
*6SF7(F)	6	45	D	Diode
*6SF7(K)	6	78	B	Regular
*Disregard a glow at position "A".				
-6SG7(F)	6	85	C	Regular
- Disregard a glow at posit.B & D.				
-6SH7(F)	6	84	C	Regular
- Disregard a glow at posit.B & D				
*6SL7GT(K)	6	76	B	Regular
*6SL7GT(K)	6	76	E	Regular
*Disregard a glow at position "A".				
*6SN7(K)	6	80	B	Regular
*6SN7(K)	6	80	E	Regular
*Disregard a glow at position "A".				
*6SR7(K)	6	79	B	Regular
*6SR7(F)	6	50	C	Diode
*6SR7(F)	6	50	D	Diode
*Disregard a glow at position "A".				
6SS7(K)	6	78	D	Regular
6U6GT(K)	6	84	A	Regular
7G7(K)	6	87	A	Regular
7H7(K)	6	86	A	Regular
7N7(K)	6	82	A	Regular
7N7(K)	6	82	B	Regular
7R7(K)	6	84	A	Regular
7R7(F)	6	30	C	Diode
7R7(F)	6	30	D	Diode
7V7(K)	6	87	A	Regular
7Z4(F)	6	70	C	Regular
7Z4(F)	6	70	E	Regular
12H6	7	57	B	Diode
12H6	7	57	D	Diode
12J5(K)	7	83	A	Regular
12K8(F)	7	85	D	Regular
12K8(K)	7	86	A	Regular
*12SF7(F)	6	45	D	Diode
*12SF7(K)	7	78	B	Regular
*Disregard a glow at position "A".				
*12SF5(F)	7	80	B	Regular
-12SG7(F)	7	85	C	Regular
-Disregard a glow at position B & D.				
*12SL7GT(K)	7	76	B	Regular
*12SL7GT(K)	7	76	E	Regular
*12SR7(K)	7	79	B	Regular
*12SR7(F)	7	50	C	Diode
*12SR7(F)	7	50	D	Diode
*Disregard a glow at position "A"				
14A4(K)	7	83	A	Regular
14A5(K)	7	83	A	Regular
14A7(K)	7	80	A	Regular
***14B6(K)	7	79	A	Regular
***14B6(F)	7	50	E	Diode
***14B6(F)	7	50	F	Diode
***Disregard a glow at posit. A & D.				
14B8(K)	7	80	A	Regular
14C5(K)	7	82	A	Regular
14C7(K)	7	82	A	Regular
***14E6(F)	7	75	C	Regular
***14E6(F)	7	50	E	Diode
***14E6(F)	7	50	F	Diode
***Disregard a glow at posit.A & D.				
14F7(K)	7	78	A	Regular
14H7(K)	7	86	A	Regular
14J7(K)	7	82	A	Regular
14J7(F)	7	77	E	Regular
14N7(K)	7	82	A	Regular
14N7(K)	7	82	B	Regular
14Q7(K)	7	84	A	Regular
14R7(K)	7	84	A	Regular
14R7(F)	7	30	C	Diode
14R7(F)	7	30	D	Diode
14Y4(F)	7	78	C	Regular
14Y4(F)	7	78	E	Regular
***45Z3(K)	8	58	D	B Type
***Disregard a glow at posit.B & E.				
50Y6GT(K)	9	83	A	Regular
50Y6GT(K)	9	83	C	Regular
...50Z7G(K)	9	84	A	Regular
...50Z7G(K)	9	84	C	Regular
...Use 8 prong socket marked S or set A-B switch to B position for the Models 802 & 803.Disregard a glow at posit.E.				
.117N7(K)	11	85	A	Regular
.117N7(K)	11	84	E	Regular
.Use the 8 prong socket marked S. Set A-B switch to B position.				
.117P7GT(K)	11	85	A	Regular
.117P7GT(K)	11	84	E	Regular
.Use 8 prong socket marked S. Set A-B switch to B position.				
117Z4GT(K)	11	85	A	Regular
117Z6GT(F)	11	85	D	Regular
117Z6GT(F)	11	85	B	Regular
XXD(K)	7	80	A	Regular
XXD(K)	7	80	B	Regular
XXL(K)	6	82	A	Regular

Series October 10, 1941

MODEL 309K DIAGRAM AND INSTRUCTION SHEET
(The pilot lamp is used only in our Model 310 and is not used in the Model 309K)



TRANSFORMER DIAGRAM



10 is directly in back of C SEC., 1 is directly in back of 6 etc.

COLOR CODE OF RESISTORS

Wire Wound

Value	Dot	Dot	Heart
14.5	brown	yellow	-
388	orange	grey	brown
200	red	-	brown
1000	brown	-	red

Carbon

Value	Body	Tip	Center Dot
5000	green	black	red
18000	brown	grey	orange
500,000	green	black	yellow
10,000	brown	black	orange